

# Akira Yamaguchi

## List of Publications by Year in descending order

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78  
papers

2,349  
citations

257450

24  
h-index

214800

47  
g-index

78  
all docs

78  
docs citations

78  
times ranked

2732  
citing authors

#	ARTICLE	IF	CITATIONS
1	Solid-State Photophysical Properties of Chiral Perylene Diimide Derivatives: AIEnh-Circularly Polarized Luminescence from Vacuum-Deposited Thin Films. <i>Bulletin of the Chemical Society of Japan</i> , 2022, 95, 751-758.	3.2	3
2	Giant Carbon Nano-Test Tubes as Versatile Imaging Vessels for High-Resolution and In Situ Observation of Proteins. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 26507-26516.	8.0	5
3	Structural Characterization of Proteins Adsorbed at Nanoporous Materials. <i>Analytical Sciences</i> , 2021, 37, 49-59.	1.6	4
4	Differential Scanning Calorimetry Study on the Adsorption of Myoglobin at Mesoporous Silicas: Effects of Solution pH and Pore Size. <i>ACS Omega</i> , 2020, 5, 22993-23001.	3.5	6
5	Effect of Cavity Size of Mesoporous Silica on Type 1 Copper Site Geometry in Pseudoazurin. <i>Bulletin of the Chemical Society of Japan</i> , 2020, 93, 630-636.	3.2	4
6	In-situ Neutron Reflectometry Study on Adsorption of Glucose Oxidase at Mesoporous Aluminum Oxide Film. <i>Analytical Sciences</i> , 2020, 36, 1331-1335.	1.6	2
7	Continuous Mesoporous Aluminum Oxide Film with Perpendicularly Oriented Mesopore Channels. <i>ACS Omega</i> , 2019, 4, 17890-17893.	3.5	2
8	Effect of Cavity Size of Mesoporous Silica on Short DNA Duplex Stability. <i>Langmuir</i> , 2018, 34, 5545-5550.	3.5	5
9	Characterization of Myoglobin Adsorption into Mesoporous Silica Pores by Differential Scanning Calorimetry. <i>Analytical Sciences</i> , 2018, 34, 1393-1399.	1.6	9
10	Structural Characterization of Myoglobin Molecules Adsorbed within Mesoporous Silicas. <i>Journal of Physical Chemistry C</i> , 2018, 122, 15567-15574.	3.1	13
11	High-performance bioelectrocatalysts created by immobilization of an enzyme into carbon-coated composite membranes with nano-tailored structures. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20244-20251.	10.3	15
12	Probing structure–function relationships in early events in photosynthesis using a chimeric photocomplex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10906-10911.	7.1	22
13	Nanoporous Waveguide Spectroscopy for the Estimation of Enzyme Adsorption on Mesoporous Silica. <i>Analytical Sciences</i> , 2017, 33, 473-476.	1.6	10
14	Thermodynamics of Complexation between Thiourea-based Receptor and Acetate in Water/Acetonitrile Mixture. <i>Analytical Sciences</i> , 2016, 32, 741-744.	1.6	1
15	Stability of Hairpin Structure of (CCG) <sub>4</sub> Trinucleotide Repeats inside Amine-functionalized Silica Mesopores. <i>Chemistry Letters</i> , 2016, 45, 1425-1427.	1.3	2
16	Collimated microfiber spectroscopy for optical characterization of disordered porous anodic alumina. <i>Applied Physics Express</i> , 2016, 9, 022503.	2.4	2
17	High-Performance Bio-Sensor with Enzymes Immobilized on Mesoporous Membranes: Nanosized Pores Just Corresponding to the Size of an Enzyme Improve the Stability of the Sensor Drastically. <i>Advanced Porous Materials</i> , 2016, 4, 157-165.	0.3	6
18	Structural Stability of Light-harvesting Protein LH2 Adsorbed on Mesoporous Silica Supports. <i>Analytical Sciences</i> , 2015, 31, 1069-1074.	1.6	8

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19	Highly sensitive real-time detection of DNA hybridization by using nanoporous waveguide fluorescence spectroscopy. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	10
20	Trinucleotide duplex formation inside a confined nanospace under supercooled conditions. <i>Nature Communications</i> , 2014, 5, 5151.	12.8	10
21	Electrochemical enzymatic biosensor with long-term stability using hybrid mesoporous membrane. <i>Analyst</i> , The, 2014, 139, 4654-4660.	3.5	25
22	Alumina Plate Containing Photosystem I Reaction Center Complex Oriented inside Plate-Penetrating Silica Nanopores. <i>Journal of Physical Chemistry B</i> , 2013, 117, 9785-9792.	2.6	7
23	Inclusion Complexation of $\beta$ -Cyclodextrin and Coumarin Dye inside Alumina Nanopores over a Temperature Range of 303-233 K. <i>Journal of Physical Chemistry C</i> , 2013, 117, 17567-17573.	3.1	3
24	Encapsulation of PEG-modified Myoglobin in Hydrophobic Mesoporous Silica as Studied by Optical Waveguide Spectroscopy. <i>Analytical Sciences</i> , 2013, 29, 187-192.	1.6	4
25	Structural Regulation of Mesoporous Silica and Characterization of the Microenvironment Inside a Silica Mesopore. <i>Bunseki Kagaku</i> , 2013, 62, 581-588.	0.2	1
26	Enhanced fluorescence in a nanoporous waveguide and its quantitative analysis. <i>Optics Express</i> , 2012, 20, 12850.	3.4	16
27	Microviscosity of Supercooled Water Confined within Aminopropyl-modified Mesoporous Silica as Studied by Time-resolved Fluorescence Spectroscopy. <i>Analytical Sciences</i> , 2012, 28, 1065-1070.	1.6	15
28	Nanoporous Waveguide Sensor with Optimized Nanoarchitectures for Highly Sensitive Label-Free Biosensing. <i>ACS Nano</i> , 2012, 6, 1541-1547.	14.6	108
29	Deposition of Polyelectrolyte Multilayer Film on a Nanoporous Alumina Membrane for Stable Label-Free Optical Biosensing. <i>Journal of Physical Chemistry C</i> , 2012, 116, 23533-23539.	3.1	24
30	Acid-Base Equilibria inside Amine-Functionalized Mesoporous Silica. <i>Analytical Chemistry</i> , 2011, 83, 2939-2946.	6.5	46
31	Adsorption and Desorption Dynamics of Sodium Dodecyl Sulfate at the Octadecylsilane Layer on the Pore Surface of a Mesoporous Silica Film Observed in-situ by Optical Waveguide Spectroscopy. <i>Analytical Sciences</i> , 2011, 27, 597-603.	1.6	11
32	Functionalization of mesoporous silica membrane with a Schiff base fluorophore for Cu(II) ion sensing. <i>Analytica Chimica Acta</i> , 2011, 696, 94-100.	5.4	41
33	Grafting of phenylboronic acid on a glassy carbon electrode and its application as a reagentless glucose sensor. <i>Journal of Electroanalytical Chemistry</i> , 2011, 656, 192-197.	3.8	24
34	Mesoporous silica hybrid membranes for precise size-exclusive separation of silver nanoparticles. <i>Journal of Colloid and Interface Science</i> , 2011, 355, 348-358.	9.4	31
35	Transparent nanoporous tin-oxide film electrode fabricated by anodization. <i>Thin Solid Films</i> , 2011, 519, 2415-2420.	1.8	24
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37	Mesoporous Materials toward Nanofabricator and Nanoreactor. <i>Electrochemistry</i> , 2010, 78, 105-113.	1.4	6
38	Properties of A Metal Clad Waveguide Sensor Based on A Nanoporous-Metal-Oxide/Metal Multilayer Film. <i>Analytical Chemistry</i> , 2010, 82, 6066-6073.	6.5	36
39	Organic-inorganic mesoporous silica nanostrands for ultrafine filtration of spherical nanoparticles. <i>Chemical Communications</i> , 2010, 46, 3917.	4.1	62
40	Encapsulation of catalase into nanochannels of an inorganic composite membrane. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2009, 57, 183-187.	1.8	30
41	Optical Waveguide Sensor Based on a Porous Anodic Alumina/Aluminum Multilayer Film. <i>Analytical Chemistry</i> , 2009, 81, 105-111.	6.5	68
42	Separation of adenine, adenosine-5'-monophosphate and adenosine-5'-triphosphate by fluidic chip with nanometre-order diameter columns inside porous anodic alumina using an aqueous mobile phase. <i>Lab on A Chip</i> , 2009, 9, 1337.	6.0	7
43	Characterization of the Inner Space of Mesostructured Silica by Time-Resolved Fluorescence Spectroscopy. <i>Bunseki Kagaku</i> , 2009, 58, 507-516.	0.2	0
44	Electrochemical synthesis of Au/polyaniline-poly(4-styrenesulfonate) hybrid nanoarray for sensitive biosensor design. <i>Electrochemistry Communications</i> , 2008, 10, 1090-1093.	4.7	22
45	Integration of mesostructured silica with bathophenanthroline into a porous alumina membrane by one-pot synthesis method. <i>Microporous and Mesoporous Materials</i> , 2008, 113, 139-145.	4.4	2
46	Enzyme catalytic membrane based on a hybrid mesoporous membrane. <i>Chemical Communications</i> , 2008, , 853-855.	4.1	28
47	Diffusion of Metal Complexes Inside of Silica-Surfactant Nanochannels within a Porous Alumina Membrane. <i>Journal of Physical Chemistry B</i> , 2008, 112, 2024-2030.	2.6	28
48	Solvation Dynamics of Coumarin 153 in Alcohols Confined in Silica-Surfactant Nanochannels. <i>Journal of Physical Chemistry A</i> , 2008, 112, 11535-11542.	2.5	30
49	Fabrication and Analytical Applications of Hybrid Mesoporous Membranes. <i>Analytical Sciences</i> , 2008, 24, 25-30.	1.6	27
50	Utilization of Nanometre-order Diameter Columns inside Porous Anodic Alumina for Chromatography Chip System. <i>Chemistry Letters</i> , 2008, 37, 18-19.	1.3	3
51	Use of porous anodic alumina membranes as a nanometre-diameter column for high performance liquid chromatography. <i>Chemical Communications</i> , 2007, , 1160.	4.1	12
52	Local Environments of Coumarin Dyes within Mesostructured Silica-Surfactant Nanocomposites. <i>Journal of Physical Chemistry B</i> , 2006, 110, 3910-3916.	2.6	37
53	Permeation Flux of Organic Molecules through Silica-surfactant Nanochannels in a Porous Alumina Membrane. <i>Analytical Sciences</i> , 2006, 22, 1495-1500.	1.6	16
54	Diffusivities of Tris(2,2'-bipyridyl)ruthenium inside Silica-Nanochannels Modified with Alkylsilanes. <i>Analytical Sciences</i> , 2006, 22, 1501-1507.	1.6	25

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55	Template Synthesis of Arrays of One-dimensional Gold Nanowires Standing on a Carbon Film. <i>Chemistry Letters</i> , 2006, 35, 1352-1353.	1.3	22
56	Analysis of Associated Structures of Rhodamine B Adsorbed at Interfaces by Second Harmonic Generation Spectroscopy. <i>Bunseki Kagaku</i> , 2006, 55, 457-465.	0.2	1
57	Extraction mechanisms of charged organic dye molecules into silica-surfactant nanochannels in a porous alumina membrane. <i>Analytica Chimica Acta</i> , 2006, 556, 157-163.	5.4	21
58	Longitudinal diffusion behavior of hemicyanine dyes across phospholipid vesicle membranes as studied by second-harmonic generation and fluorescence spectroscopies. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 386, 627-632.	3.7	32
59	Solvation Dynamics at the Water/Mica Interface as Studied by Time-resolved Fluorescence Spectroscopy. <i>Chemistry Letters</i> , 2005, 34, 988-989.	1.3	12
60	High Sensitivity and Large Dynamic Range Surface Plasmon Resonance Sensing for DNA Hybridization Using Au-Nanoparticle-Attached Probe DNA. <i>Japanese Journal of Applied Physics</i> , 2005, 44, L1544-L1546.	1.5	17
61	Molecular Recognition of Ions at Liquid/Liquid Interfaces. , 2005, , 233-248.		1
62	Construction of DNA-Au Nanoparticles Multilayer and Its Application to Detection of DNA Hybridization. <i>Japanese Journal of Applied Physics</i> , 2004, 43, 2767-2770.	1.5	5
63	Self-assembly of a silica-surfactant nanocomposite in a porous alumina membrane. <i>Nature Materials</i> , 2004, 3, 337-341.	27.5	441
64	Electrochemical modification of benzo-15-crown-5 ether on a glassy carbon electrode for alkali metal cation recognition. <i>Journal of Electroanalytical Chemistry</i> , 2004, 563, 249-255.	3.8	66
65	Adsorption Behavior of Lauric Acid at Heptane/Water Interface as Studied by Second Harmonic Generation Spectroscopy and Interfacial Tensiometry. <i>Analytical Sciences</i> , 2004, 20, 1523-1527.	1.6	2
66	Anion Recognition at the Solid/Liquid Interface as Studied by Second Harmonic Generation Spectroscopy. <i>Chemistry Letters</i> , 2003, 32, 798-799.	1.3	8
67	Molecular Recognition at Solid/Liquid and Liquid/Liquid Interfaces As Studied by Second Harmonic Generation Spectroscopy. <i>Hyomen Kagaku</i> , 2003, 24, 280-287.	0.0	0
68	Flexural Rigidity of a Single Microtubule. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 3015-3019.	1.5	69
69	Enhancement of Surface Plasmon Resonance Sensing for DNA Hybridization Using Colloidal Au Attached Probe DNA. <i>Chemistry Letters</i> , 2002, 31, 190-191.	1.3	19
70	Direct Observation of Alkali Metal Ion Recognition Processes at the Heptane/Water Interface by Second Harmonic Generation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2002, 106, 9906-9911.	2.6	31
71	A heater-integrated transparent microchannel chip for continuous-flow PCR. <i>Sensors and Actuators B: Chemical</i> , 2002, 84, 283-289.	7.8	179
72	Rapid fabrication of electrochemical enzyme sensor chip using polydimethylsiloxane microfluidic channel. <i>Analytica Chimica Acta</i> , 2002, 468, 143-152.	5.4	39

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73	Glucose Sensing Based on Interdigitated Array Microelectrode. <i>Analytical Sciences</i> , 2001, 17, 841-846.	1.6	28
74	Photo-electrochemical Deposition of Platinum on TiO <sub>2</sub> with Resolution of Twenty Nanometers using a Mask Elaborated with Electron-Beam Lithography. <i>Japanese Journal of Applied Physics</i> , 2001, 40, 4246-4251.	1.5	12
75	Reversible phase transitions in polymer gels induced by radiation forces. <i>Nature</i> , 2000, 408, 178-181.	27.8	321
76	Observation of Molecular Association at Liquid/Liquid and Solid/Liquid Interfaces by Second Harmonic Generation Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2000, 104, 12091-12094.	2.6	52
77	Separation, Detection, and Functional Materials. Characterization of molecules and molecular recognition at interfaces.. <i>Bunseki Kagaku</i> , 1999, 48, 1063-1075.	0.2	1
78	Resonant Second Harmonic Spectroscopy of Rhodamine B Adsorbed onto Fused Silica.. <i>Analytical Sciences</i> , 1997, 13, 85-88.	1.6	12